

Claims

1. Method for controlling the driving dynamics of a vehicle (250), in which a steering movement is carried out on the basis of a set value (u), which is calculated as a function of a deviation between a desired value ($\dot{\psi}_M$) and an acquired actual value ($\dot{\psi}$) of a vehicle state variable ($\dot{\psi}$),

characterized in that

at least a membership degree (λ_1, λ_2) of an acquired value (δ_{Drv}) of a steering angle (δ_{Drv}), which is set by the driver (210), and/or of a steering angle gradient ($\dot{\delta}_{Drv}$), which is set by the driver (210), in a given fuzzy set are/is determined, and a value ($\Delta\delta_{Add}$) of the set value (u) is changed as a function of this membership degree (λ_1, λ_2).

2. Method according to Claim 1,

characterized in that

the membership degree (λ_1) of the value (δ_{Drv}) of the steering angle (δ_{Drv}), which is set by the driver (210), in a set of "small" steering angles is determined.

3. Method according to one or both Claims 1 and 2,

characterized in that

the membership degree (λ_2) of the steering angle gradient ($\dot{\delta}_{\text{Drv}}$), which is set by the driver (210), in a set of "small" steering angle gradients is determined.

4. Method according to one or more of the preceding claims, characterized in that,

the value ($\Delta\delta_{\text{Add}}$) of the set value (u) is changed as a function of an acquired value of a vehicle velocity (v_{Veh}).

5. Method according to one or more of the preceding claims, characterized in that

the value ($\Delta\delta_{\text{Add}}$) of the set value (u) is changed as a function of the membership degree (λ_v) of the acquired value (v_{Veh}) of the vehicle velocity (v_{Veh}) in a set of "mean" velocities.

6. Method according to one or more of the preceding claims, characterized in that

the steering movement is suppressed, when the acquired value (v_{Veh}) of the vehicle velocity (v_{Veh}) is below a first limit value (v_{low}) or above a second limit value (v_{high}).

7. Device for controlling the driving dynamics of a vehicle (250), with a control unit (260), which, on the basis of the deviation of an acquired actual value ($\dot{\psi}$) of a vehicle state variable ($\dot{\psi}$) from a given desired value ($\dot{\psi}_M$), determines a

setting value (u), on the basis of which a steering movement is carried out

and with

a fuzzy logic unit (280) for determining the membership degree (λ_1) of a value (δ_{Drv}) of a steering angle (δ_{Drv}), which has been set by the driver (210), with respect to of "small" steering angles, and a membership degree (λ_2) of a steering angle gradient ($\dot{\delta}_{Drv}$), which has been set by the driver, in a set of "small" steering angle gradients and for changing a value ($\Delta\delta_{Add}$) of the set value (u) using a linkage of the membership degrees (λ_1, λ_2).

8. Device according to Claim 7,

characterized in that

a logic unit (270) [sic; is used] for determining a membership degree (λ_v) of an acquired value (v_{Veh}) of a vehicle velocity (v_{Veh}) with respect to of "mean" velocities and for changing the value ($\Delta\delta_{Add}$) of the setting value (u) as a function of this membership degree (λ_v).

Summary:

Method and Device for Controlling the Driving Dynamics of a Vehicle

The invention relates to a method for controlling the driving dynamics of a vehicle, in which a steering movement is carried out on the basis of a set value, which is calculated as a function of a deviation between a desired value and an acquired actual value of a vehicle state variable.

The method is characterized in that at least one membership degree of an acquired value of a steering angle, which is set by a driver, and/or of a steering angle gradient, which is set by the driver, in a predetermined fuzzy set, are/is determined, and a value of the set value is changed as a function of the membership degree.